One of the many big steamships of the Great Lakes fleet being unloaded through the marine legs of a large grain elevator at a lake port. The grain will be transshipped for milling and storage until distributed. One of the marine legs operates out of a tower mounted on wheels running on a track. The tower can be moved to bring the leg opposite the hold which it will empty.

GRAIN

FEBRUARY 1949

THE MAGAZINE OF PLANT MANAGEMENT AND OPERATION

WELCOME

NEW S.O.G.E.S. MEMBERS

Since the last printing of the list of new members, the following have joined the ranks of the Society of Grain Elevator Superintendents:

803 **Leon D'Aoust,** Supt., Feed, Seed & Fert. Div.
Land O'Lakes Creamery, Inc., Minneapolis, Minn.

804 **George J. Keeting,** Superintendent
Empire Storage & Ice Co., Kansas City, Mo.

805 **Thomas F. O'Connor,** Representative
Contractors Supply Co., Kansas City, Mo.

806 **Maynard H. Brown,** Mgr. Machinery Dept.
Brown-Strauss Corp., Kansas City, Mo.

807 **W. G. Ritzenthaler,** President
Great Lakes Supply Co., Chicago, Ill.

808 **Herman M. Kroloff,** Superintendent
Allied Grain Co., Phoenix, Ariz.

809 **Kern Chaney,** Ass't Superintendent
Sherley Elevator, Anna, Texas

810 **Ben C. Klingensmith,** Field Engineer
Eriez Mfg. Co., Erie, Pa.

811 **George T. Murphy,** Field Engineer
Signode Steel Strapping Co., Chicago, Ill.

812 **Clifford R. McKee,** Superintendent
McKee Field & Grain Co., Muscatine, Ia.

813 **David P. Swan,** Field Engineer
Dixie Mchy. Mfg. Co., St. Louis, Mo.

814 **Irving J. Evins,** Sec'y-Treasurer
Adar Supply & Chemical Co., Chicago, Ill.

815 **George R. Joslyn,** Superintendent
J. J. Badenoch Co., Chicago, Ill.

SICK WHEAT -- DEAD WHEAT

A Preventative Solution to the Problem

ROBERT H. BLACK
Assistant to the Director, Grain Branch Products and Marketing Administration, USDA.

SICK wheat has been a problem with soft red wheat grain handlers and processors for many years and will undoubtedly continue to be so until better methods of handling wheat after harvest are found and used in this country. The amount of sick wheat fluctuates greatly from year to year, but elevator superintendents can expect to be confronted with the continuing problem of preventing sick wheat and of controlling sick wheat in storage every year.

There has been much discussion as to the causes of sick wheat and as to what is meant by sick wheat when it is referred to by the grain trade. When a grain inspector speaks of sick wheat, he is usually referring to individual kernels of wheat that are considered to be damaged because the germs are discolored and the discoloration is of a type which the inspector has learned from experience to be evidence of a dead, deteriorated germ, and that other damage to the kernel has occurred. A normal wheat kernel at harvest time is a living organism containing a germ which will sprout and grow under proper conditions. Soft Red Winter wheat generally has a short period of dormancy immediately after harvest and during the period of dormancy germination is not likely to start. By September or October, however, if sufficient moisture is present the wheat kernel will start germinating in the ordinary temperatures encountered in this area at that time. In normal germination a plentiful supply of oxygen is required. Unless sufficient oxygen is present during the germination cycle the germ becomes sick, discolored and dies.

When germination starts, enzymatic activity in other parts of the kernel increases at a very rapid rate to provide food for the sprout that would normally emerge from the germ. Once accelerated, these enzymatic activities apparently never cease but continue at a slow or rapid rate depending largely upon the amount of free water present and the temperature.

Wheat that has attempted to sprout and in which the germ has died because of the lack of oxygen is usually referred to as sick wheat Not only is the germ discolored and dead, but the balance of the kernel has begun to deteriorate. Due to the enzymatic activities, some of the starch has changed to sugar, some of the fats to fatty acids, and other changes have taken place which make the kernel unsuited for milling and the resultant flour undesirable for baking purposes.

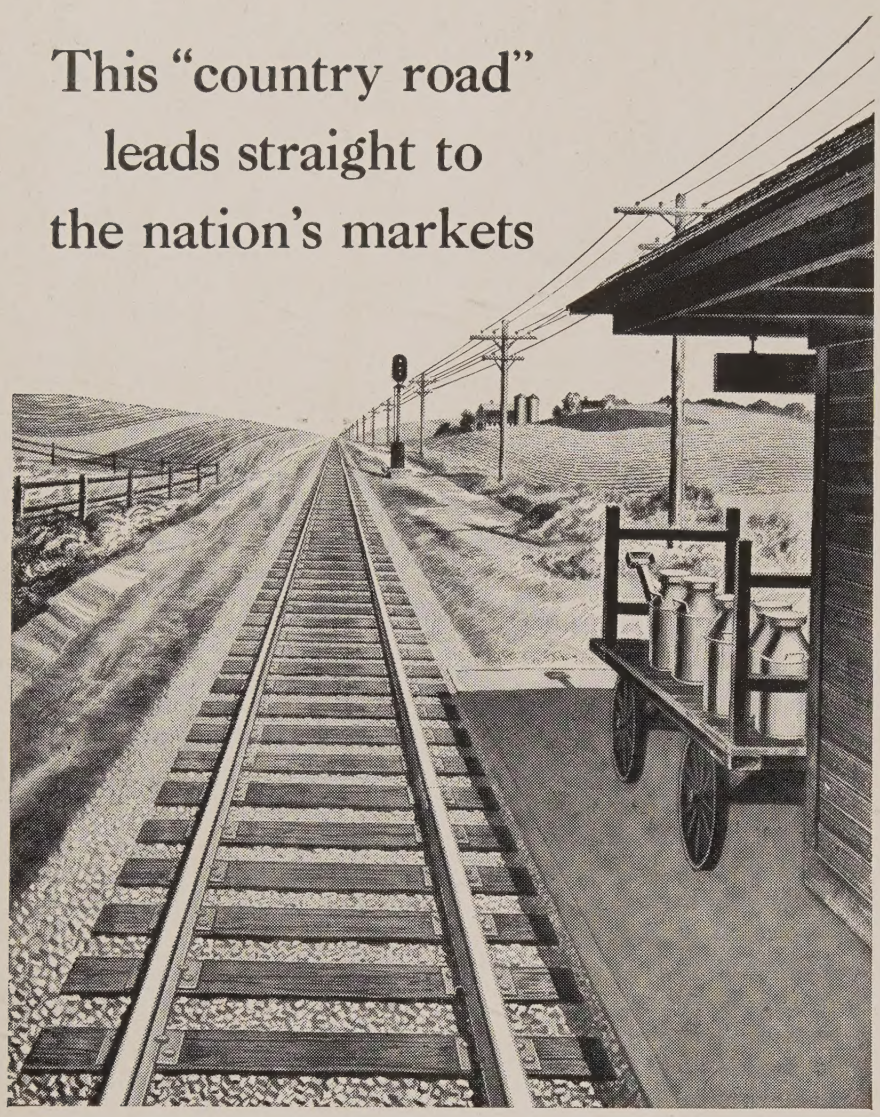
One writer has said that sick wheat should be referred to as dead wheat. A sick wheat kernel is dead as far as the germ is concerned, but it is still sick and continues to deteriorate through the physical and chemical changes that continue to take place because of the presence of the enzymes which are found in every wheat kernel. Deterioration may also be aided and accelerated by the presence of bacteria and fungi. A man who becomes sick with a fever or with other diseases may become well again, but the wheat kernel does not possess these recuperative powers and once a kernel of wheat has become sick the rate of deterioration depends upon the several factors which cause deterioration.

The effect of sick wheat on milling and the quality and amount of resultant flour that may be obtained from any lot of wheat containing sick wheat depends upon the percentage of sick wheat present and the stage of deterioration that the sick wheat may have reached. Any lot of wheat containing sick wheat in large quantities can be expected to cause milling difficulties, to result in low flour yield, flour of poor baking quality, and flour which will not keep long in storage. Sick wheat lowers the milling yield, produces poor color in flour, and results in high ash and fat acidity content. The protein in the flour has been injured by the activity of the proteolitic enzymes and the flour does not give normal response to added bromate or phosphate. There is a characteristic odor in any baked product made from sick wheat flour which may or may not be detected in the dough, which sometimes is not present in the freshly baked bread or cake, but which may be nauseating after two or three days.

In the principal soft red wheat-producing areas, climatic conditions are such that the moisture content of the wheat is much higher than in the other major wheat-producing areas. Not only is much of the wheat too high in moisture for safe storage, but most of the driest wheat is close to the border line for safe storage. Blending of wheat in this area in the hope of reducing moisture content for safe storage frequently results in spoilage of the entire lot.

The record of inspections of the soft red winter wheat receipts for the past 10 years, including those for the crops of 1938 through 1947, shows that in five years between 10 and 20 percent of the soft red winter wheat graded *Tough* because it contained more than 14 percent moisture; that in three years over 20 percent graded *Tough;* and that 26.7 percent of the 1947 crop receipts graded *Tough.* Nearly one-fourth of the 1948 crop received to date has graded *Tough.* In addition, some of the soft red winter wheat contains over 15.5 percent moisture and is graded *Sample* grade. This means

This "country road" leads straight to the nation's markets



● The early American farmer knew every turn of the winding road on which he made the all-day trip to the nearest town—his only market.

Today the farmer's market begins at the nearest railroad loading platform—and extends to profitable markets all over the land.

Last year, for example, the railroads helped move the greatest harvest ever produced in a single year by any nation. They also hauled the bulk of the other raw materials produced by our nation's farms, forests, and mines—as well as most of our manufactured products. And they handled the entire job for an average charge of only 1¼ cents for hauling a ton a mile.

In performing this service, the American railroads once again proved to be the most efficient and economical transportation system in the world. To do an even better and more efficient job in the future, the railroads are now buying cars and engines, reducing grades and curves, improving signals and shops, adding to their facilities—at a cost of a billion dollars a year.

The only way the railroads can carry on such a program for still better service is to have earnings which are more nearly in line with today's costs—earnings which will justify the large investments needed.

★

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SOGES CHAPTER MEETING DATES

1st TUESDAY — Minnesota SOGES Chapter. Henry J. Anderson, Bunge Corp., Minneapolis, President; James Auld, Hales & Hunter Co., St. Louis Park, Secretary.

2nd TUESDAY — Omaha-Council Bluffs SOGES Chapter. John T. Goetzinger, Rosenbaum Bros., Omaha, President; W. S. Pool, Nebraska-Iowa Elevator, Omaha, Secretary.

2nd FRIDAY—Central States SOGES Chapter. M. M. Darling, Acme-Evans Co., Indianapolis, President; N. R. Adkins, Ralston Purina Co., Lafayette, Secretary.

3rd TUESDAY—Kansas City SOGES Chapter. Orin Kinman, Cargill, Inc., Kansas City, President; George D. Duncan, Standard Milling Co., Kansas City, Secretary.

3rd TUESDAY — Chicago SOGES Chapter. Edward Anderson, Norris Grain Co., Chicago President; Harry Hanson, Glidden Co., Chicago, Secretary.

3rd THURSDAY — Buffalo SOGES Chapter. Cornelius Halsted, General Mills, Inc., Buffalo, President; James Burns, Pillsbury Mills, Inc., Buffalo, Secretary.

that on the average about one-sixth of the soft red winter wheat can be expected to have more than 14 percent moisture.

As a general rule, wheat containing more than 14 percent moisture is likely to become sick if the moisture content is not sufficiently reduced before the individual kernels make an effort to germinate. In the dry areas of the United States, where plentiful supplies of wheat containing very low moisture are available, the *Tough* wheat might be carefully blended with very dry wheat and the moisture of the entire mass reduced to a safe level, but in the greater part of the soft red winter wheat belt moistures are relatively high and there is not enough dry wheat to permit the blending operation with much expectation of safe storage. The only solution appears to be to dry all wheat containing more than 14 percent moisture to a safe storage level and to do this drying at the earliest possible opportunity after harvest.

It is particularly desirable that the drying operation be performed before any deterioration starts. The old saying about grain that "once out of condition always out of condition is as true of soft red winter wheat as of any other grain. When we speak of the moisture content of grain we are referring to the amount of moisture or water that can be removed by the appropriate official method. In wheat, as in other grains, the water that is removed by drying in an oven or by other means consists of both "free" water and "bound" water. These two terms have not been exactly defined but the *free* water may be considered to be that which is found between the particles of starch, protein, and other constituents of the wheat kernel, and which is able to move more or less freely to different parts of the kernel. *Bound* water, however, is supposed to be held more tightly to or inside the many particles of the kernel and that can be released only by enzymatic activity, deterioration or by laboratory methods. Although there is much theory connected with this subject and more research is needed, it is believed that the average *bound* water content of sound wheat is approximately seven to eight percent. The balance of the moisture content is *free* water. It is the *free* water which assists in germination and which must be present to cause deterioration. If wheat having a moisture content of 13 percent is sound and no deterioration has started, it contains approximately five to six percent of *free* water. In wheat containing 15 percent moisture the *free* water content is approximately seven to eight percent, or about the same as the amount of *bound* water. However, if deterioration starts, whether it be caused by germination or any other action that produces an increase in the enzymatic activity, some of the *bound* water is liberated and becomes *free* water, and as the amount of *free* water increases deterioration accelerates.

If further deterioration is to be retarded in wheat which has gone out of condition, it must be dried to a lower moisture level than wheat that is sound.

There are several mechanical and chemical aids to the person storing wheat. Moisture testers appear to be a necessity in this area. Bin thermometers regularly read and the readings recorded and compared will warn of danger. Fat-acidity tests also recorded and compared at intervals will tell a valuable story if any deterioration starts.

To those who are interested in reading about this subject a recent article on "Chemical and Nutritive Changes in Store Grain[1] by Dr. Lawrence Zeleny, which appeared in the August, 1948 issue of Cereal Chemistry is recommended. Dr. Zeleny lists 75 other items of literature bearing on this subject at the end of his article.

The prevention and control of sick wheat is a complex subject and a hazardous occupation but it appears from all of the evidence available that careful observance of the following rules by anyone storing Soft Red Winter wheat should be helpful:

1—Dry all wheat immediately that contains more than 14 percent moisture.

2—Dry the wheat to a safe storage moisture content. The moisture content for safe storage of wheat depends upon the temperature at which the wheat is stored, the general condition of the wheat, and the kind of storage.

3—Watch all bins of soft red winter wheat carefully, have fat acidity tests made at intervals if there is any suspicion of deterioration, and do not aerate or turn wheat in warm, humid weather.

CREEPING SOCIALISM

The struggle for freedom against the encroachment of the state is going on not only between the United States and Russia but the same conflict is being waged in this country with different slogans and labels. This campaign is underway to expand the power of an already massive federal government, weakening individual liberties and limiting the field of free enterprise. Many of our sincere citizens who are condeming the Russian brand of despotism accept without protest the accumulation of power in the hands of central authority in Washington. The major trend in this country is "creeping socialism" which is termed as socialism, communism, democratic socialism and national socialism. Whatever it is called it has one thing in common. Each stands for the concentration of power in the state, for the limitation of private enterprise, for curtailment of the freedom of the individual, for the reversal of the historic struggle for a society of free men.

CHICAGO CHAPTER ON LABORATORY TOUR

More than 60 interested superintendents and guests took advantage of the opportunity to tour and inspect the Underwriters Laboratories, Inc. on Jan. 19. The laboratory tests of new equipment and supplies was thoroughly explained to the visiting Chicago Chapter members, perhaps the first formal tour of the building since before the war. Adding to the Chicagoans were many of the supers and plant executives from out-of-town.

S. O. G. E. S. CONVENTION PLANS-- RESERVATIONS AVAILABLE NOW

Information at hand regarding interest in the 20th Anniversary convention of the Society of Grain Elevator Superintendents, to be held May 11-14 at the Nicollet Hotel in Minneapolis, calls forth the prediction that it will be the greatest meeting ever held with attendance figures surpassing those of conventions held in the past. Members and associates of the S.O.G.E.S. planning to be part of the meeting are urged to make hotel reservations at once. At the moment, the hotel has promised to reserve up to 200 rooms for the convention and it is extremely important that reservations be made for these rooms.

Superintendents will make reservations for themselves and their wives through Smith Champlin, Archer-Daniels-Midland Co., 600 Roanoke Building, Minneapolis. To insure definite reservations please advise Mr. Champlin who has made arrangements for prompt confirmations. Do it now.

Associate members must make their reservations direct to the Nicollet Hotel. Exhibitors will do the same.

The 1949 Committee is working strenuously to assure all superintendents attending the convention a well-planned and balanced program. The local committees are:

General Convention Chairman: Robert R. Bredt, Fruen Milling Co.

Ass't Convention Chairman: Henry J. Anderson, Bunge Corp.

Convention Sec'y-Treasurer: James Auld, Hales & Hunter Co.

Finance: Paul H. Christensen, Van Dusen-Harrington Co., Chairman. Ira Willis, Superior Separator Co.

Publicity: Henry J. Anderson, Bunge Corp., Chairman. E. J. Raether, Seedburo Equipment Co. Carl Thomer, Strong-Scott Mfg. Co.

Reception: Robert L. Ranney, Ralston Purina Co., Chairman. Raymond Bakke, Pillsbury Flour Mills. Lloyd Stoppel, Bethlehem Steel Corp. George Patchin, Appraisal Service Co.

House: Smith L. Champlin, Archer-Daniel-Midland Co., Chairman. Harmon F. Norton, Apple River Mill Co. Ormand Fruend, Rahr Malting Co.

Transportation: Maynard Losie, Hallett & Carey Co., Chairman. Clarence C. Bach, Archer-Daniels-Midland Co. Walfred Auguston, Van Dusen Harrington Co. E. N. Dietmeier, Archer-Daniels-Midland Co.

Banquet: Hill F. Shepardson, Hart-Carter Co., Chairman. Ernest O. Ohman, Osborne McMillan Elevator Co.

Associates: Frank J. Kohout, A. C. Horn Corp., Chairman. A. B. Osgood, The Day Co. Walter Kostick, R. R. Howell Co. Robert Crane, Anderson Crane Rubber Co.

Ladies Entertainment: Robert W. Morgan, W. S. Nott Co., Chairman.

The convention will officially open at noon, Wednesday, May 11.

REMEMBER: Early room reservations are a "must". During the same period that the Society is holding its convention, the Metropolitan Opera Company will be in Minneapolis. The opera will attract a large number of outstate guests so it behooves every super intending to be in Minneapolis for the convention to write to Smith Champlin, immediately if not sooner.

PMA COMMITTEE TO SURVEY COMMODITY STORAGE NEEDS

An over-all survey of future storage needs for agricultural commodities, and the facilities which will be required to meet these needs, is being carried out by the Production and Marketing Administration, PMA Administrator Ralph S. Trigg announced today.

A working committee of storage and commodity specialists, headed by Roland F. Ballou, Chief of the PMA Commodity Office at San Francisco, will coordinate the survey and report directly to Administrator Trigg. Representatives of Commodity offices in the South, Southwest, Midwest, and Eastern regions of the country will serve on the special committee with Mr. Ballou. All PMA branches with responsibilities for commodities, or services related to these commodities, will work with the committee.

The committee will make an across-the-board study of general agricultural storage problems. It will consider storage facility needs by commodities, the places where facilities should be located, and any other questions involved. The basic objective will be the determination, in as much detail as possible, of requirements for the development of a sound, over-all national storage program to meet the needs of the months and years ahead.

BUSINESS ADJUSTMENT — 1949 PATTERN

A "mild adjustment in the economic picture" rather than the oft heralded "depression or a violent reaction" is expected in 1949 by most of the executives participating in a survey of business practices conducted by the National Industrial Conference board.

More than half the executives expressed the opinion that new orders will be lower in the first half of the year than in either half of 1948, only a quarter of the business men expect new orders to increase. Three of every five, however believe the 1949 level of operation of their own companies will equal or top the 1948 figures.

Only one company in five expects to have lower inventories and smaller backlogs of orders were reported by six of ten companies. Only one in seven expects backlogs to increase in the first half of 1949. The board said factors adding to the general air of pessimism were predictions of higher labor and material costs (with resultant higher break-even points), a probable increase in corporate taxes, a drop in the general level of business activity because of the completion of many expansion programs, and the prospect of a larger share of sales diverted to government agencies with attendant lower profits.

Foreign shipments and government sponsored allocation programs were mentioned as having made the procurement of such important raw materials more difficult. In addition to the belief that their own volume will hold up well in 1949, a number of executives described a basis for optimism because of the improvement that has taken place in the supply of labor.

FUNCTION OF THE MARKET

The market is the key economic institution of a free society. The market process of voluntary exchange, according to the Committee for Economic Development, makes two great contributions to the organization of society.

First, despite all imperfections, the market operates with an efficiency not equalled by any other system. Decisions are made at each point throughout the economic system by persons most closely concerned and generally best informed about the alternatives in each particular situation. But at the same time the decisions are not made in isolation. Each person has before him the relative prices of various goods and services which represent to him the conditions under which these products can be supplied and the demands of other purchasers for these same products.

Second, the decentralization of decision-making in the market permits society to be organized without great concentration of power and without coercion. Each individual makes his own voluntary adaption to his economic environment; he is not coerced into it by a central decision-maker.

The function performed by the market is to determine how much of each particular commodity or service is produced, by whom, and for whose benefit. These questions cannot be left to government in a society that values freedom. They are too complex to be handled efficiently by an administrative agency. Moreover, any government entrusted with making these decisions would have tremendous power over the lives of its citizens.

IN THE WINTER WHEAT BELT

With winter wheat largely in the dormant stage, about the only tangible development that can be reported at this time is that the outlook definitely has been improved, thanks to recent rain, sleet and snow, much of the latter still being on the ground.

The past month was one of the wettest Januarys in several years, and most of the wheat belt, including Santa Fe territory, now has an adequate supply of both surface and subsoil moisture, thus setting the stage for another bumper crop, depending on winter and spring conditions.

WHY EDS. SKIP TOWN

"Bachelor desires cook, just plain fool, nothing fancy."—*Virginia paper.*

FIRE-FIGHTING MOVIE

"Fire-Fighting with Wetter Water," a new 20-minute 16 mm. sound movie in color by Carbide and Carbon Chemicals Corporation, is now available for showings to municipal, volunteer, and industrial firemen or groups interested in fire-fighting and fire prevention. The movie illustrates how water made wetter by the Corporation's new product, "Unox" fire-fighting penetrant, knocks out fires 3 to 4 times faster than plain water. It also shows tests run throughout the country by various members of the fire service demonstrating the speed of knockdown and quick extinguishment now made possible when "Unox" penetrant is added to water. Fire tests depicted include demonstrations of wetter water on fires in cotton, wallboard, wooden, shacks, and various flammable liquids. Interested groups are invited to arrange for showings without charge by writing Carbide and Carbon Chemicals Corporation, Room 328, 30 East 42nd Street, New York 17, N. Y.

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Office:
LLE ST.
LINOIS

U. S. APPROVES VOLUNTARY STEEL ALLOTMENT

A voluntary allocation of steel to provide temporary grain bin storage capacity of approximately 100 million bushels has been approved by the Steel Industry Advisory Committee of the U.S. Department of Commerce.

Under the voluntary plan 8,400 tons of steel products will be made available each month for the temporary bin program. Each monthly quota will consist of 8,000 tons of 18-26 gauge galvanized sheet and 400 tons of hot rolled sheet and bar sized angle irons. The committee approval was given after requests by the U.S. Department of Agriculture. Shipments of steel under this program will be made during the six-month period, March to August.

The reliance on private bin manufacturers to merchandise this temporary bin capacity directly to farmers brings into review the pre-election charges of administration campaigners who claimed that the real estate ownership ban in the new Commodity Credit Corp. charter prevented the USDA from providing storage for the abundant crops.

MORE PHILADELPHIA STORAGE

Grain and flour men, at the annual meeting of the Commercial Exchange in Philadelphia, were told by re-elected president R. J. Barnes that the construction of additional grain storage facilities in the Port of Philadelphia was strongly advocated. He urged the members to dedicate themselves to the task of leaving no stone unturned in working toward the objective of adequate grain storage capacities. Demand for space at times has exceeded existing capacity causing shipping permits to be refused by the railroads because they feared that congestion might develop. Shippers have in the past sought to route their grain through the port in larger amounts than could be handled at a time when rival ports were not fully occupied.

U. S. STUDIES LARGE GRAIN BIN PROGRAM

The government is considering the construction of vast storage facilities during the coming spring and summer sufficient to care for 250 million to 350 million bushels of surplus grains, it was learned this month.

A general outline of the plan may be laid before the senate agriculture committee by Secretary of Agriculture Brannan. He has been called to testify on administration sponsored legislation which would let the department of agriculture go into the storage business on a large scale.

Facilities Termed Short

Building of a chain of government storage bins would be intended to help relieve what it says is a serious shortage of storage facilities. That shortage has weakened the government's price support programs for grains, because only grain which is in good storage is eligible for price support aid.

The direct building of bins by the government would be only a part of a huge storage construction program. Officials say there is need for an increase of at least 1 billion bushels in the country's grain storage capacity.

Farmers, farmer co-operatives, the private grain trade, and commercial storage companies would be encouraged to build the additional facilities, possibly through loans or subsidies.

Expects Big Takeover

The government would limit its construction to the capacity expected to be needed for live stock feed grains which will become its property under price support programs.

Officials said there is a possibility that between 350 million and 450 million bushels of corn, grain sorghums, barley, and oats may be turned over to the department this year by farmers in full payment of price support loans.

WHY EDS. SKIP TOWN

"Salesman Wanted: Must be able to put up $500 blond."—*Utah paper.*

INTERESTING FACTS ABOUT THE RAILROADS

A single track requires an average of 175 tons of steel rails per mile.

—o—

Chicago is the world's largest railroad center, having about 7,800 miles of railway trackage in the terminal district, including 206 freight yards with a total capacity of nearly a quarter of a million freight cars.

—o—

Every railroad maintains a Car Record Office which, by means of daily reports, keeps a complete record of the movements not only of all freight cars on its own lines, regardless of ownership, but also all of its own cars on other railroads.

—o—

Class I railroads and railroad-owned and controlled private refrigerator car companies placed 102,737 new freight cars in service in 1948, the largest number installed in any year since 1925 and an increase of 39,425 above 1947.

—o—

More than two miles of electric wiring, or approximately 10,640 feet, go into the building of a 2000-horsepower Diesel-electric locomotive.

—o—

Railroad dining cars prepared and served approximately 80,000,000 meals in 1947.

—o—

New locomotives installed in service in 1948 by Class I railroads totaled 1,487, the greatest number for any year since 1927.

EUROPEAN CORN BORER DAMAGE DOUBLED IN 1948

The European corn borer reduced the 1948 crop of field corn by 85,500,000 bushels, the U. S. Department of Agriculture announced recently in Washington, D. C. Surveys recently completed by the Bureau of Entomology and Plant Quarantine, with cooperating agencies, indicate this loss in corn production is more than double that of 1947.

The present value of the corn lost in 1948 is $103 million dollars.

Losses due to the borer in 1947 were estimated to have been 97 million dollars, but corn sold for $2.40 per bushel then. The 1948 estimated loss is based on $1.20 corn.

Iowa farmers lost most, nearly 46 million dollars. Other states suffering huge dollar losses from borer damage are Illinois, 26 million, Minnesota, 8 million, Ohio, 5 million, and Indiana, 7 million.

The borer infests the entire corn belt now. It can be found in nearly every corn field from New England to the Dakotas and Virginia to Canada. A few borers were found in Louisiana recently by Bureau entomoligists, indicating that the pest occurs far south of any previously known infestation. Whether Arkansas, Mississippi, Alabama, or Georgia corn fields are infested is not known. Extensive surveys have not been conducted for the insect in southern States.

Greatest reduction of the national corn crop has not occurred so far, the entomologists say. Peak damage will probably come in years favoring the development of the insect when it is generally distributed in this country.

DERBY ELEVATOR HAS $250,000 FIRE LOSS

The Derby Grain Co. elevator at Colby, Kansas, sustained a $250,000 property loss by fire early in February. Origin of the blaze was undetermined. At the time of the fire the elevator contained 50,000 bushels of wheat and large stocks of sacked feed.

CANADIAN ELEVATOR FIRE

Fire of undetermined origin destroyed a Manitoba Pool elevator at Portage la Prairie, Man., containing 10,000 bushels of grain, causing damage estimated at $100,000. Number 2 Federal Grain Co. elevator at Cando, Sask., burned to the ground with the loss of considerable grain.

UHLMANN RE-ELECTED BY CHICAGO B. OF T.

Richard F. Uhlmann, president of the Uhlmann Grain Co., was re-elected to succeed himself as president of the Chicago Board of Trade in the recent annual election. Other officers chosen are: Carl E. Bostrom, assistant secretary of Lowell Hoit & Co., first vice-president; Sylvester, J. Meyers, vice-president of Arcady Farms Milling Co., second vice-president.

G. G. LEE RETIRES

G. G. Lee, manager of the Grain Clearing Co. of the Kansas City Board of Trade announced his retirement effective February 1. Lee had held this position for almost 45 years and will be succeeded by R. D. Cline who has been assistant manager for the past 27 years.

MULLIN HEADS ELEVATOR GROUP

J. F. Mullin, manager of the Minneapolis division of Leval & Co., Inc., was elected president of the Minneapolis Terminal Elevator association.

He replaces Howard I. McMillan, president of Osborne-McMillan Elevator Co., who has been president of the association since its founding in 1946. Mullin was vice president.

Carl C. Farrington, vice president, Archer-Daniels-Midland Co., was elected vice president. Ron Kennedy was re-elected secretary-treasurer.

The following directors were also chosen; R. C. Woodworth, Cargill, Inc.; Donald Fraser, Cereal Grading Co.; H. H. Tearse, Searle Grain Co.; Harry Schere, Van Dusen Harrington Co.; A. L. Burdick, Electric Steel Elevators Division, Russell Miller Milling Co.; Mullin, and Farrington.

FORGAN RE-ELECTED

The Board of Directors of the Chicago Board of Trade re-elected James B. Forgan, Vice Chairman of the Board of the First National Bank of Chicago to serve as Treasurer of the Board of Trade for the year 1949, according to announcement by J. O. McClintock, Executive Vice President.

CAPACITY ADDITIONS IN SOUTH

Dixie-Portland Flour Mills at Richmond, Va., is completing the first successful season with its new mill elevator—one of the most modern in the south. This 500,000-bu. storage unit adjoins the 4300-cwt. flour mill on the James River. It has handled more than 700,000 bu. of wheat from trucks alone this crop season by means of a truck lift large enough to raise semi-trailers. The elevator also has a headhouse for rapid unloading of grain from box cars.

Designed and constructed by Jones-Hettelsater Corp., Kansas City, Mo., the new storage unit consists of 26 tanks and 22 interstice bins, and a headhouse 180 ft. high.

HARRIS NEW B. OF T. SECRETARY

Everette B. Harris has been appointed Secretary of the Chicago Board of Trade to fill the vacancy caused by the recent death of Wm. B. Bosworth, according to an announcement by J. O. McClintock, Executive Vice President. For eight years he worked with the U. S. Department of Labor in its Washington and Chicago offices, and also spent several years with the U. S. Department of Agriculture. His affiliation with the Chicago Board of Trade will become effective March 1st.

WILSON REELECTED BY DULUTH B. OF T.

H. W. Wilson, Cargill, Inc., was reelected president of the Duluth Board of Trade at the annual meeting in January. W. W. Bleecher, Hoover Grain Co., was renamed vice-president.

MARK YOUR CALENDAR

The 20th Anniversary Convention of the Society of Grain Elevator Superintendents will be held May 11-14 at the Nicollet Hotel, Minneapolis. Plan on attending.

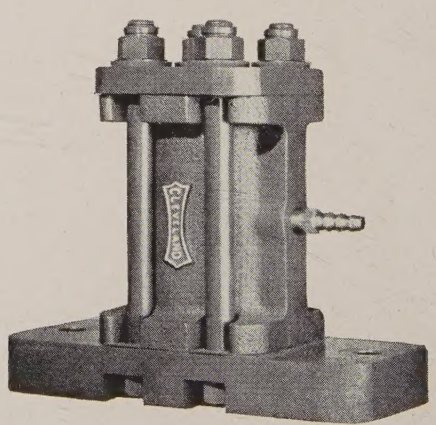
NEW SOYBEAN EXTRACTION PLANT

Chemical Plants Division of Blaw-Knox Company has received a contract from the Soyafeed and Oil Corporation, located at East St. Louis, Illinois, to design and construct a modern 200-ton per day soybean extraction plant.

The new plant will employ hexane as a solvent in conjunction with the most modern extraction and recovery equipment. The award covers the procurement of the following items of process equipment developed by the Blaw-Knox Company for the solvent extraction industries: three Lewis flaking mills, one vapor desolventizer, one pressure toaster and one deodorizer, in addition to an extractor of new design.

BIN SHAKE-OUT VIBRATORS

Designed for installation on almost on almost every type of hopper and storage bin, type "F" CLEVELAND pneumatically-operated vibrators deliver hammer-like blows to prevent the arching-over and plugging of sand, coal, grain, ore, lime slag and chips in bins having capacities ranging from one to several-hundred tons. Numerous new sizes have been added to this standard line of vibrators, and they all serve to assure constant and rapid flow of materials as well as to eliminate the need for manual pounding or beating which often is harmful to hoppers.



Request Catalog 104, Cleveland Vibrator Co., 2724 Clinton Avenue, Cleveland 13, Ohio.

WATCH YOUR MOTOR

Proper care and attention given your electric motors will more than pay in service received than the time needed to insure the efficient operation of the motor. One of the prime requisites needing attention is lubrication. It is reported that about 85% of motor trouble is in the bearings wearing away because of lack of lubrication. It is doubtful whether any elevator man begrudges the cost of oil. But he does forget that the motor needs that attention and when he does remember he is apt to over-lubricate to make up for past neglect. Frankly over-lubrication is bad too. It wastes oil, causes oil reservoirs to overflow, and in many cases oil-soaks the motor windings injuring the insulation.

Improperly oiled bearings wear fast and besides causing vibrations, will permit the leakage of oil. The leaked oil mixes with dirt, grain dust or any foreign particles making for an abrasive action which explains why damage is done to motor windings. The main points to remember in the care of motors are: Use the right oil; use it correctly; use it at regular intervals, so bearing wear will be lessened without the bad effects of overflow oil. The same general principles apply to grease used on ball-bearing motors.

By close observation it is easy to determine the amount of lubricant to use and how often to use it. Another unit needing attention are the brushes. It will pay to look at them about every ten days, check them for alignment, dirt, breaks, and terminal looseness. Watch your motor. It pays.

GRAIN STORAGE IN CANADA RAISED

Total licensed grain storage capacity in Canada increased approximately 4 million bushels over last year according to figures released for Dec. 1, 1948. The rise in the storage capacity, 486.2 million bushels, is accounted for mainly by increased licensed capacity at Fort William-Port Arthur. Stocks in store Dec. 9, 1948 were 196.4 million bushels of 40.4% of the licensed storage capacity as compared with 177 million bushels or 36.7% of the capacity at approximately the same time in 1947.

1½ MILLION BUSHEL ELEVATOR FOR LATHROP

Plans have been announced by the Lathrop Grain Corp., Kansas City, for the construction of a new concrete elevator at Fort Worth, Texas, which will have storage capacity of 1,500,000 bushels. Chalmers & Borton, Hutchinson, Kansas, will start work immediately on the structure and it is expected that at least part of the plant will be ready for operation in time to receive wheat on the new crop. James Meyers and Samuel Muir will be co-managers in charge of operations. The new elevator will be built on the line of the Fort Worth & Denver Railway and will raise Lathrop's total capacity to 6½ million bushels at various points.

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